

Parameter	Unit	Value	Standard Error	t-Statistic	p-Value
Intercept		0.0000	0.0000	0.0000	0.0000
Age	Years	0.0000	0.0000	0.0000	0.0000
Age squared	Years squared	0.0000	0.0000	0.0000	0.0000
Age cubed	Years cubed	0.0000	0.0000	0.0000	0.0000
Age quart	Years quart	0.0000	0.0000	0.0000	0.0000
Age quint	Years quint	0.0000	0.0000	0.0000	0.0000
Age sext	Years sext	0.0000	0.0000	0.0000	0.0000
Age sept	Years sept	0.0000	0.0000	0.0000	0.0000
Age oct	Years oct	0.0000	0.0000	0.0000	0.0000
Age non	Years non	0.0000	0.0000	0.0000	0.0000
Age dec	Years dec	0.0000	0.0000	0.0000	0.0000
Age ele	Years ele	0.0000	0.0000	0.0000	0.0000
Age twel	Years twel	0.0000	0.0000	0.0000	0.0000
Age thir	Years thir	0.0000	0.0000	0.0000	0.0000
Age four	Years four	0.0000	0.0000	0.0000	0.0000
Age fiv	Years fiv	0.0000	0.0000	0.0000	0.0000
Age six	Years six	0.0000	0.0000	0.0000	0.0000
Age sev	Years sev	0.0000	0.0000	0.0000	0.0000
Age eigh	Years eigh	0.0000	0.0000	0.0000	0.0000
Age nine	Years nine	0.0000	0.0000	0.0000	0.0000
Age ten	Years ten	0.0000	0.0000	0.0000	0.0000
Age elev	Years elev	0.0000	0.0000	0.0000	0.0000
Age twel	Years twel	0.0000	0.0000	0.0000	0.0000
Age thir	Years thir	0.0000	0.0000	0.0000	0.0000
Age four	Years four	0.0000	0.0000	0.0000	0.0000
Age fiv	Years fiv	0.0000	0.0000	0.0000	0.0000
Age six	Years six	0.0000	0.0000	0.0000	0.0000
Age sev	Years sev	0.0000	0.0000	0.0000	0.0000
Age eigh	Years eigh	0.0000	0.0000	0.0000	0.0000
Age nine	Years nine	0.0000	0.0000	0.0000	0.0000
Age ten	Years ten	0.0000	0.0000	0.0000	0.0000
Age elev	Years elev	0.0000	0.0000	0.0000	0.0000
Age twel	Years twel	0.0000	0.0000	0.0000	0.0000
Age thir	Years thir	0.0000	0.0000	0.0000	0.0000
Age four	Years four	0.0000	0.0000	0.0000	0.0000
Age fiv	Years fiv	0.0000	0.0000	0.0000	0.0000
Age six	Years six	0.0000	0.0000	0.0000	0.0000
Age sev	Years sev	0.0000	0.0000	0.0000	0.0000
Age eigh	Years eigh	0.0000	0.0000	0.0000	0.0000
Age nine	Years nine	0.0000	0.0000	0.0000	0.0000
Age ten	Years ten	0.0000	0.0000	0.0000	0.0000
Age elev	Years elev	0.0000	0.0000	0.0000	0.0000
Age twel	Years twel	0.0000	0.0000	0.0000	0.0000
Age thir	Years thir	0.0000	0.0000	0.0000	0.0000
Age four	Years four	0.0000	0.0000	0.0000	0.0000
Age fiv	Years fiv	0.0000	0.0000	0.0000	0.0000
Age six	Years six	0.0000	0.0000	0.0000	0.0000
Age sev	Years sev	0.0000	0.0000	0.0000	0.0000
Age eigh	Years eigh	0.0000	0.0000	0.0000	0.0000
Age nine	Years nine	0.0000	0.0000	0.0000	0.0000
Age ten	Years ten	0.0000	0.0000	0.0000	0.0000
Age elev	Years elev	0.0000	0.0000	0.0000	0.0000
Age twel	Years twel	0.0000	0.0000	0.0000	0.0000
Age thir	Years thir	0.0000	0.0000	0.0000	0.0000
Age four	Years four	0.0000	0.0000	0.0000	0.0000
Age fiv	Years fiv	0.0000	0.0000	0.0000	0.0000
Age six	Years six				

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Title of the Invention

## POINT SERVICE SYSTEM ON THE NETWORK

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## POINT SERVICE SYSTEM ON THE NETWORK

## BACKGROUND OF THE INVENTION

The present invention relates to a point service system which provides the points corresponding to a commodity including a service when it is

5 purchased, and more particularly to the point service system which is intended for transactions on a network.

As prior arts on a point service system that is intended for transactions on a network, there has been proposed "Method for issuing service ticket in  
10 article transaction using communication line" as disclosed in JP-A-9-245256 and "Point service system for virtual shopping center" disclosed in JP-A-10-78989. The prior art of JP-A-9-245256 is arranged so that the service tickets to be issued by a shop in  
15 transactions with a customer through a communication line are managed on each customer's unit and the service tickets of each customer are given back at the next intended transaction in the form of a price cut or a premium. The prior art of JP-A-10-78989 is arranged  
20 so that the common points to be issued at a point-issuing rate set for each shop when a virtual shop transacts with a customer are managed on each customer's unit and the payment is cut at the point-giving-back rate set for each shop in the next intended  
25 transaction by the customer with the shop.

The prior art disclosed in JP-A-9-245256 has a capability of merely providing a fixed and uniform service. This prior art thus has difficulty in applying itself to a variety of shops run by their  
5 respective managers. The prior art disclosed in JP-A-10-78989 is arranged to perform giving-back of the points through the payment cut. This prior art thus has difficulty in coping with an illegal deed or bankruptcy of a specific shop (adjustment).

10 SUMMARY OF THE INVENTION

It is an object of the present invention to provide a point service system which is arranged to overcome the foregoing difficulties, allow any virtual shop and customer to safely join the system itself and  
15 any virtual shop to flexibly and rapidly change a ratio of a service to the corresponding points for prompting sales on the shop's own decision so that the system may cover a variety of shops run by their own managers as its joining member.

20 In order to meet the condition that the virtual shop and a customer can join the system safe and sound, the present invention prepares three means. As a method of giving back the points to a customer, a method of giving back the premium corresponding to the  
25 number of points obtained by the customer is adopted in place of the method of cutting the payment in a new transaction. In order to realize this method, the

point service system is provided with a function of supporting a shop for providing a service (including a commodity, which holds true to the following term "service") and the other function of supporting a vendor for providing a premium. Then, the procedure of giving a qualification to a virtual shop that intends to join the system on the proper examination and then distributing a key to the qualified virtual shop is adopted for the purpose of suppressing the adverse influence taking place in an illegal deed or bankruptcy of a specific shop. Further, by considering a time passage, the present point service system provides a capability of making a term-determined contract with a virtual shop, storing the transactions data in an inside database as trace information, and determining the validity of the continuation of the contract on the stored data.

The point service system according to the invention has a rule of defining an upper limit and a lower limit of a ratio of a service to the corresponding points inside the system itself. According to this rule, the virtual shop enables to define the number of points at each transaction of a service or a premium and communicates it to the host computer having the point service system itself. The point service system hence enables to flexibly and rapidly change the ratio of a service to the

corresponding points on the virtual shop's own decision.

Moreover, the point service system according to the invention has a capability of storing family  
5 information in which a group of customers are treated as a family unit. This capability makes it possible to realize a more convenient point service system.  
Moreover, the point service system includes a function corresponding to the virtual shop itself so that a firm  
10 having no virtual shop as a business base can join the system.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a block diagram showing an overall arrangement of a point service system according to the  
15 present invention;

Fig. 2 is a view showing essential information managed in a database provided in the point service system of the present invention;

Fig. 3 is a view showing essential  
20 information stored in the database for operating the point service system according to the present invention;

Fig. 4 is a flowchart showing a procedure of registering a shop as one form of a virtual shop in the  
25 point service system according to the present invention;

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Fig. 5 is a flowchart showing a procedure of registering a customer member in the point service system according to the present invention;

Fig. 6 is a flowchart showing a procedure of registering a vendor as one form of a virtual shop in the point service system according to the present invention;

Fig. 7 is a view showing a procedure of processing points in a transaction of a service in the point service system according to the present invention;

Fig. 8 is a view showing a procedure of processing points in a transaction of a premium in the point service system according to the present invention;

Fig. 9 is a view showing a main content of a message to be treated by a host of the point service system according to the present invention;

Fig. 10 is a flowchart showing a procedure of managing a contract term of the point service system according to the present invention with the shop as an example;

Fig. 11 is a flowchart showing a procedure of creating statistical information in the point service system according to the present invention;

Fig. 12 is a block diagram showing a computer of the host of the point service system according to the present invention;

Fig. 13 is a block diagram showing a computer of the shop of the point service system according to the present invention;

Fig. 14 is a block diagram showing a computer of the member of the point service system according to the present invention;

Fig. 15 is a block diagram showing a computer of the vendor of the point service system according to the present invention;

Fig. 16 is a block diagram showing an overall arrangement of a point service system according to another embodiment of the present invention;

Fig. 17 is a view showing an example of a Web screen provided by the point service system according to the present invention;

Fig. 18 is a view showing one example of a business flow at a preliminary stage of the point service system according to the present invention; and

Fig. 19 is a view showing one example of a business flow at a promoting stage of the point service system according to the present invention.

#### DESCRIPTION OF THE EMBODIMENTS

Fig. 1 shows an overall arrangement of a point service system according to an embodiment of the present invention.

The point service system is arranged to have a computer 3 (referred to as a shop) in which provided



Then, the description will be oriented to the arrangement of a computer in which the point service system is operated. As shown in Fig. 12, the computer of the host 1 is arranged to have a database 17 (referred to as a DB) for storing information necessary to the point service, a CPU 101 that enables the point service host program for performing the point service to be operated through the use of the DB 17, and a network connecting mechanism 102 for connecting to another computer through the network. The shop computer 3 is, as shown in Fig. 13, arranged to have a CPU 111 that enables the client program for a shop to be operated and a network connecting mechanism 112 to be connected with another computer through a network, the client program for a shop serving to communicate information on a service transaction to the host 1 of the point service point system when a service transaction with the customer takes place. Likewise,

the vendor computer 5 is, as shown in Fig. 15, arranged to have a CPU 131 for enabling a client program for a vendor to be operated and a network connecting mechanism 132 to be connected with another computer

5 through a network, the client program for a vendor serving to communicate information on a premium transaction to the host 1 of the point service system when a premium transaction with the customer takes place. Further, the member computer 4 is, as shown in

10 Fig. 14, arranged to have a CPU 121 for enabling a program for accessing a WEB to be operated and a network connecting mechanism 122 to be connected with another computer through a network, the program for accessing a WEB serving to access the host 1 of the  
15 point service system. The network connecting mechanisms 102, 112, 122 and 133 that are all components of the point service system provide means for encrypting communication information for protecting that from malignant intruders.

20 In turn, the description will be oriented to the function of the point service host program that is operated on the host 1 of the point service system with reference to Fig. 1.

The host 1 includes a shop support unit 11  
25 for making the information to be stored in the host open to the shop 3, a shop registration unit 12 for examining and registering a shop and a service to be

10

20

by the DB for the point service is shown in Fig. 2.

25

purchased, a service-providing term and the remaining number of the service, a point effective term when provision of the points to the service is guaranteed, and a message by which the shop appeals to the member.

- 5 The list of the vendor shown in (b) of Fig. 2 includes an ID by which the host identifies the vendor, a key given by the host to the vendor, a term of contract with the vendor, an ID of each premium provided by the vendor, a name of the premium, the number of points
- 10 consumed by the customer for the premium by the customer, a premium-providing term and the remaining number of the premium, a point effective term when provision of the number of points required for the premium is guaranteed, and a message by which the
- 15 vendor appeals to the member. The list of the member shown in (c) of Fig. 2 includes an ID by which the host identifies each member, a key given by the host to the member, a term of contract with each member, the number of accumulated points of each member, information for
- 20 discriminating whether or not the member belongs to a specific family, and information for identifying the family. The list of the family shown in (d) of Fig. 2 includes an ID by which the host identifies the family, the number of the members composing each family, the
- 25 number of accumulated points which is the sum of the points of all members of the family, information for determining in the family a boss member who occupies a right of exchanging a premium with the points obtained

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by the family, and an ID of the boss member.

Then, the essential information to operating the system, stored on the DB, is shown in Fig. 3.

The point using rule for a shop shown in (a) of Fig. 3 includes a service price range, a lower limit value and an upper limit value of the point number corresponding to the service price range, an upper limit value of the bonus point in which the service can be provided with points more than the upper limit value within a certain term for sales, and a term when the bonus points are effective. The point using rule for a vendor shown in (b) of Fig. 3 includes a price range of a premium, a premium price range, a lower limit value and an upper limit value of the point number corresponding to the price range, a lower limit value of the bonus points in which each premium can be provided with points less than the lower limit value within a certain term for sales, and a term when the bonus points are effective. The expiration noticing rules for a shop/vendor/member shown in (c) to (e) of Fig. 3 each include one or more expiration noticing times for specifying a time when the contract update time is coming close and one or more notice suppressing conditions for suppressing the expiration notice. The trace information for transactions shown in (f) of Fig. 3 includes a date and time of each transaction taking place between the system and a shop/vendor/member, an unique transaction number specified for each

transaction, a type of transaction, an ID of a member who performs a transaction, and a key thereof. The point service using information of a shop/vendor/member/family shown in (g) to (j) of Fig. 3 includes an  
5 information for identifying a shop/vendor/member/family, a total number of transactions, a total number of treating the points, and a first and a last transaction dates.

In succession, the description will be  
10 oriented to the procedure of registering a shop, a member and a vendor.

At first, the summary of the procedure of registering a shop, which is performed in the shop registering unit 12, will be described with reference  
15 to the flowchart shown in Fig. 4.

When the shop 3 makes access to the shop registering unit 12, the unit requests the name of a shop or a firm of the shop 3 (201). Then, the operation is executed to compare the inputted name of  
20 the shop or firm with the ID of the shop listed in the DB 17 and determine if it has been already registered on the compared result (202). If it is not registered in the shop list, the request for the necessary examination information to registration is given to the  
25 shop 3 (203). Then, the examination information is read and the operation is temporarily finished (204). If no problem takes place as a result of performing a

manual examination, a key is sent. If it is registered  
in the shop list, an operation is executed to request  
the shop 3 to input the key (205). Then, the inputted  
key is collated to the registered key in the shop list  
5 (206). If the keys are not matched, the operation is  
finished (207) and then the fact is recorded in a log.  
The collation of the keys may be retried several times.  
If the keys are matched to each other, the operation is  
executed to request the shop 3 to input a contract type  
10 (208). It is determined if the contract is new (209).  
If it is not new, the operation is executed to extend  
the contract and update the service information  
provided by the shop 3 for updating the content of the  
shop list stored in the DB 17 (210), and then the  
15 operation is finished (211). If it is new, the  
operation is executed to determine if it is an agency  
contract that entrusts the sales to the host 1 (212).  
If it is not the agency contract, the operation is  
executed to make a contract of joining a member of the  
20 point service, receive the necessary information to the  
shop list stored in the DB 17, and add it to the shop  
list (213) so that the client program for a shop can be  
downloaded, and then the operation is finished (214).  
The client program for a shop may be provided through a  
25 recording medium such as a floppy disk or a CD-ROM. If  
it is the agency contract, the operation is executed to  
make an agency contract of a service, receive the  
necessary information to the shop list in the DB 17,

and add it to the shop list (215), and then the operation is finished. Next, the shop (agency) is manually registered in the host 1 (216). The shop support unit 11 provides an interface by which the shop 3 have a conversation with the shop registering unit 12 and another interface by which part of the information stored in the DB 17 is referred by the shop 3.

Turning to the flowchart of Fig. 5, the summary of the procedure of registering a member, performed by the member registering unit 14, will be described.

When a member 4 makes access to the member registering unit 14, the member registering unit 14 requests an individual or body name of member 4 (401). The inputted individual or body name is compared with a member ID in the member list stored in the DB 17 for determining if it has been already registered (402). If it is not registered in the member list, the operation is executed to request the necessary examination information to the registration of the member 4 (403), and read the examination information, and then the operation is temporarily finished (404). If no problem takes place as a result of performing the manual examination, a key is sent to the member 4. If it has been already registered in the member list, the member 4 is requested to input the key (405). Then, the inputted key is collated to the key registered in the member list (406). If the keys are not matched,



the operation is finished (407) and the fact is recorded. The collation of the keys may be retired several times. If the keys are matched, the operation is executed to request the member 4 to input a contract type (408), for determining if it is a new contract (409). If it is not new, the operation is executed to update the contract content for updating the content of the member list stored in the DB 17 (410), and then the operation is finished (411). If it is a new contract, it is determined if the contract is a family one (412). If it is not a family contract, the operation is executed to make an individual contract for the point service, receive the necessary information, and add it to the member list stored in the DB 17 (413), and then the operation is finished (414). If it is a family contract, the operation is executed to make a family contract, receive the necessary information, and add it to the member list and the family list stored in the DB 17 (415), and then the operation is finished (416).

The member support unit 13 provides an interface by which the member 4 has a conversation with the member registering unit 14 and another interface by which part of the information stored in the DB 17 is referred by the member 4.

Turning to the flowchart of Fig. 6, the description will be oriented to a summary of the procedure of registering a vendor, performed by the vendor registering unit 16.

When the vendor 5 makes access to the vendor registering unit 16, the operation is executed to request the name of the shop or firm of the vendor 5 (601). The inputted name of the shop or firm is compared with each vendor ID in the vendor list stored in the DB 17 for determining if it has been already registered in the vendor list (602). If it is not registered in the vendor list, the operation is executed to request the necessary examination information to the registration from the vendor 5 (603), and read it, and then the operation is temporarily finished (604). If no problem takes place as a result of the manual examination, a key is sent to the vendor 5. If it has been already registered in the vendor list, the operation is executed to request the vendor 5 to input the key (605). The inputted key is collated to each key registered in the vendor list (606). If the keys are not matched, the operation is finished (607) and then the fact is recorded in a log. The collation of the keys may be retried several times. If the keys are matched, the operation is executed to request the vendor 5 to input a contract type (608), for determining if it is a new contract (609). If it is not new, the operation is executed to extend the contract and update the premium information provided by the vendor 5 for updating the content of the list of the vendor 5 stored in the DB 17 (610), and then the operation is finished (611). If it is new, the

operation is executed to determine if it is an agency contract that entrusts a sale to the host 1 (612), if it is not an agency contract, the operation is executed to make a contract of providing a premium, receive the necessary information to the list of the vendor 5 stored in the DB 17 and add it to the list (613) so that the client program for a vendor may be downloaded. Then, the operation is finished (614). The client program for a vendor can be provided through a recording medium such as a floppy disk or a CD-ROM. If it is an agency contract, the operation is executed to make an agency contract for providing a premium, receive the necessary information to the vendor list in the DB 17, and add it to the list (615). Then, the operation is finished. Next, the vendor (agency) is manually registered on the host 1 (616). The vendor support unit 15 provides an interface by which the vendor 5 has a conversation with the vendor registering unit 16 and another interface by which part of the information stored in the DB 17 is referred by the vendor 5.

In succession, the description will be oriented to the information exchange between the registered shop/member/vendor and the host of the point service system.

At first, the procedure of handling points in association with the service transactions will be

described with reference to Fig. 7. In the following description, the host 1 is titled as ABC and the member 4 who joins the host 1 is called a ABC member.

Moreover, the shown shop 3 may be a virtual shop

5 outside the host (affiliated shop) or a virtual shop inside the host (agency). When the member 4 purchases a specific service in the shop 3 (1), if the service is registered in the ABC, the shop 3 requests a key having been given from the ABC of the member 4 (2), creates  
10 information on the service transaction including the key (3) sent from the member 4 and the number of points to be supplied according to the purchased service, and notify the host 1 of the ABC of the information (4).

The essential content of the information on the service  
15 transaction is listed in (a) of Fig. 9. The shop support unit 11 of the host 1 refers to the DB 17 for checking the key collation and the contract status of the member/shop by using the member list and the shop list included in the DB 17 and the validity of the

20 number of points by using the point using rule for the shop (5). If no problem is found, the number of points supplied for this time is added to the number of points of the member in the DB 17 for updating it (6) and then the check information is sent to the shop 3 (7). If a  
25 problem is found on the key collation of the member/shop, the contract status check or the validity of the number of points, the check information for indicating the fact is sent to the shop 3. In response

to the check information for indicating no problem is found, the shop 3 notifies the member 4 of the fact that the shop 3 start dealings with the member 4 (8).

At a time, the shop 3 reports the information

5 containing the number of points to be supplied for this time to the member 4 through the member support unit 13 of the host 1 (9). The essential content of the report on the points in association with the service transaction is listed in (b) of Fig. 9.

10 If a problem is found on the service purchased from the shop 3 joining the ABC, the member 4 notifies the host 1 of the claim information containing the information on the member/shop/service (10). The essential content of the claim information is listed in  
15 (c) of Fig. 9. The member support unit 13 of the host 1 serves to refer to the DB 17 for checking the information on the transaction between the member and the shop and then send the check information to the member 4 (11).

20 If such a problem as no payment to the service by the member 4 though the points are supplied to the member 4 joining the ABC, the shop 3 notifies the host 1 of the information on the service stop containing the information on the member/shop/service  
25 (12). The essential content of the information on the service stop is listed in (d) of Fig. 9. The shop support unit 11 of the host 1 serves to refer to the DB 17 for checking the information on the transaction

between the member and the shop, perform a process of returning the points to the member listed in the DB 17 (13), and send the check information to the shop 3 (14). At a time, the shop support unit 11 reports the information containing the number of returned points of this time to the member 4 through the member support unit 13 of the host 1 (15). The essential content of the point report in association with the information on the service stop is listed in (e) of Fig. 9.

Turning to Fig. 8, the procedure of handling the points in association with the transactions of the premiums. The vendor 5 shown in Fig. 8 may be a virtual shop outside the host (affiliated shop) or a virtual shop inside the host (premium section). When the member 4 purchases a specific premium in the vendor 5 (1), if the premium is registered in the ABC, the vendor 5 requests of the member 4 a key having been given by the ABC (2), creates the information on the premium transaction containing the number of points consumed by the member 4 in purchasing the premium, and reports the information to the host 1 of the ABC (4). The essential content of the information on the premium transaction is listed in (f) of Fig. 9. The vendor support unit 15 of the host 1 serves to refer to the DB 17 for checking a key collation, a contract status, a number of points of a member/family by using the member list, the vendor list and the family list in the DB 17 as well as the validity of the number of points by

using the point using rule for the vendor (5). If no problem is found, the number of consumed points of this time is subtracted from the number of points of the member in the DB 17 for updating the content in the DB

5 17 (6). Then, the vendor support unit 15 sends the check information to the vendor 5 (7). Herein, if a family attribute is listed in the member list 4, the total number of points of the family is to be checked. If a problem is found on the key collation of the

10 member/vendor, the contract status check, and the validity of the number of points also in the case that the boss member is specified and another member rather than the boss member issues a request for exchanging the premium, the check information on that is sent to

15 the vendor 5. In response to the check information for indicating no problem, the vendor 5 notifies the member 4 of the fact that the vendor 5 enters into dealings with the member 4 (8). At a time, the vendor 5 reports the information including the number of consumed points

20 of this time to the member 4 through the member support unit 13 of the host 1 (9). The essential content of the point report in association with the transaction on the premium is listed in (g) of Fig. 9. If a problem takes place on the premium purchased from the vendor 5

25 joining the ABC, the member 4 notifies the host 1 of the claim information containing the information on the member/vendor/premium (10). The member support unit 13 of the host 1 serves to refer to the DB 17 for checking

the information on the transaction between the member and the vendor and then send the check information to the member 4 (11).

The exchange of the information between the shop/member/vendor and the host of the point service system is accumulatively recorded as the trace information on the transactions in the DB 17 in which trace information the date and time, the serial number and the type of each transaction are added at each exchange of information by means of the shop support unit 11, the member support unit 13 and the vendor support unit 15.

One example of the Web screen supplied to the member 4 by the host 1 of the point service system is shown in Fig. 17.

In succession, the summary of the management on the term of contract that is one of the functions of the DB managing unit 18 will be described with reference to the flowchart of Fig. 10 with the shop as an example. In the DB management unit 18, the procedure of the management on the term of contract is carried out for the shop list, the vendor list and the member list stored in the DB 17 once a day when a new day comes.

The procedure of the management on the term of contract of the shop is executed to sequentially refer to the shop list stored in the DB 17 (701), if the contract term of the shop 3 is expired on the



execution day (702), delete the information of the shop  
3 from the shop list, and record it in a log, and is  
finished and shifts to the next process for the shop  
(704). If the contract term of the shop 3 is not  
5 expired, the procedure is executed to refer to a  
contract term expiration notice rule for the shop  
(705), unless it conforms to one or more notice times  
(for example, ten days before the contract due date)  
(706), and is finished and shifts to the next process  
10 for the shop (707). If it conforms to one of the  
notice times (for example, ten days before the contract  
due date), the procedure is executed to refer to the  
trace information (708). If the current case conforms  
to one or more notice suppressing conditions (for  
15 example, zero transaction within the term of contract,  
100 or more claims from the members within the term of  
contract) of the contract term expiration notice rule  
for the shop (709), it is recorded in a log and then  
the procedure is finished and then shifts to the next  
20 process for the shop (710). Unless it conforms to one  
of the notice suppressing conditions, the update of the  
contract is guided through the shop support unit 11  
(711). Then, the procedure is finished and then shifts  
to the next process for the shop (712). At this stage,  
25 in the case that the contract term is expired in one or  
more members when the procedure of the management on  
the term of contract of all the members is finished, if  
the member has a family attribute and the contract

terms of all the members belonging to the family are expired, the family information is deleted from the family list.

In succession, the summary of the procedure  
5 of creating the statistical information that is one of the functions of the DB managing unit 18 will be described with reference to the flowchart of Fig. 11. Herein, the description will be oriented to the procedure in which the DB managing unit 18 creates the  
10 statistical information once a month when a new month comes.

The procedure of creating the statistical information is executed to refer to the trace information on the transactions stored in the DB 17  
15 (801) and, if there is not a new transaction after the one previous time of creating the statistical information (802), record the fact in the log and then is finished (803). If one or more transactions are found, the procedure is executed to refer to the member  
20 list in the DB 17 (804) and, if there is any service transaction of the member 4, (805), update the point service using information of the member including the total number of transactions, the total number of obtained points, the date of the initial transaction,  
25 and the data of the last transaction (806). If the member 4 has a family attribute, the procedure is executed to update the point service using information of the family including the total number of

transactions of the subject family, the total number of  
obtained points thereof, the date of the initial  
transaction thereof, and the date of the last  
transaction thereof. At a time, the procedure is also  
5 executed to update the point service using information  
of the shop 3 that has dealings with the member 4  
including the total number of transactions of that shop  
3, the total number of obtained points thereof, the  
date of the initial transaction thereof, and the date  
10 of the last transaction thereof (807). Next, if the  
premium transaction of the member 4 takes place (808),  
the procedure is executed to update the point service  
using information of the member 4 including the total  
number of transactions of the member 4, the total  
15 number of consumed cases thereof, the date of the  
initial transaction thereof, and the date of the last  
transaction thereof (809). If the member 4 has a  
family attribute, likewise, the procedure is executed  
to update the point service using information of the  
20 family including the total number of transactions of  
the family, the total number of consumed cases thereof,  
the date of the initial transaction thereof, and the  
date of the last transaction thereof.

Also, the vendor point service using  
25 information is updated (810), which information  
includes the total number of transactions of the vendor  
5 that has service dealings with the member 4, the  
total number of supplied points thereof, the date of

the initial transaction, and the date of the last transaction. The foregoing process is repeated for all the members 4 on the member list and then the procedure is finished (811). The foregoing description is

5 exemplary. The DB managing unit 18 serves to create two or more point service using statuses such as a monthly status, an annual status, and a total status.

At last, one example of a business flow of the present point service system will be described  
10 below with reference to Figs. 18 and 19.

Fig. 18 shows a business flow at the preliminary stage of a business in the point service system (ABC) according to the present invention. The system host 1 supplies a program for a client and  
15 obtains a registration fee as its price when the host 1 makes a new contract with the shop 3 or the vendor 5. Further, the connecting service fee is also obtained from the shop 3, the member 4 and the vendor 5. The connecting service for the member 4 may be free. The  
20 contract is flexibly promoted. Concretely, the contract is basically on the annual base, in which the connecting service fee is monthly. The registration fee and the connecting service fee are specified as the fixed cost of the system host 1. The shop 3 prepares  
25 and registers the service and purchases from the system host 1 the points corresponding to the cost and the quantity of the services to be purchased by the member 4 of the ABC. For the shop 3 and the vendor 5, the

registration fee/connecting service fee correspond to the advertisement fee. The cost required by the shop to purchase the points corresponds to the discount of the service.

5                    Fig. 19 shows a business flow at the stage of promoting a business in the point service system according to the present invention. When a service transaction is set up between the shop 3 and the member 4, the points possessed by the shop 3 are shifted to 10 the member 4. When a premium transaction is set up between the member 4 and the vendor 5, the points possessed by the member 4 are shifted to the vendor 5. The vendor 5 pays the difference from/to the system host 1 on the points obtained by the premium 15 transaction with the member 4 and thereby recovers the cost of the premium once a month.

                  The difference between the total amount of the point fee obtained from the shop 3 and the point fee to be paid to the vendor 5 is expected to be 20 allocated to the variation cost of the system host 1 and the sales benefit. Hence, the point fee of the shop 3 is different from that of the vendor 5.

                  In the foregoing description, the embodiments of the present invention have been described in detail. 25 The present invention is not limited to these embodiments. It may be embodied in other specific forms without departing from the spirit of the invention.

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The point service system according to the invention employs a system of separating the virtual shops joining the system into the shop for supplying the customer with the service and the vendor for supplying the customer with the premium, which is served as means of giving-back the points. Hence, the point service system does not need any adjustment among the virtual shops joining the system. Further, the point service system employs a system of summing the transactions between the virtual shops and the members on the basis of the number of points supplied/points consumed on the member basis notified from the virtual shop, so that the transaction between the virtual shop and the member is made more independent of the point service to be given to the member. The use of the foregoing two systems makes it possible to reduce the adverse effect of an illegal act or bankruptcy of a specific virtual shop on another virtual shop or the point service system itself to a minimum, resulting in allowing a variety of shops run by respective managers to safely join the point service system.

In turn, the virtual shop/customer who wants to join/take part in the point service system are examined before registration, the prompt contract is made, and the contract update guide is suppressed by considering the trace information on the transactions between the virtual shop and the customer. These effects make it possible to exclude the undesirable

virtual shop/customer from the point service system and stably introduce the desirable customers to the excellent virtual shops.

Further, the point service system prepares a rule containing an upper limit and a lower limit of the number of points corresponding to the price range of the service/premium. The virtual shop allows the number of points to be flexibly and swiftly changed within the price range. The virtual shop enables to utilize this function for sales to be strategically and dynamically expanded. Hence, the present point service system allows the virtual shops joining the system itself to be competitive.

In addition, the point service system prepares the family attribute for each customer, in which family attribute a group of customers uses one purse, so that the points obtained by all the members of the family can be used by any member of the family and the points obtained by all the members of the family can be used by a specific member of the family. This is highly convenient for each customer.

The point service system is arranged to provide the function corresponding to the virtual shop and allow the firm having no virtual shop as its business base to join the system itself. This arrangement makes a great contribution to the economic activity.